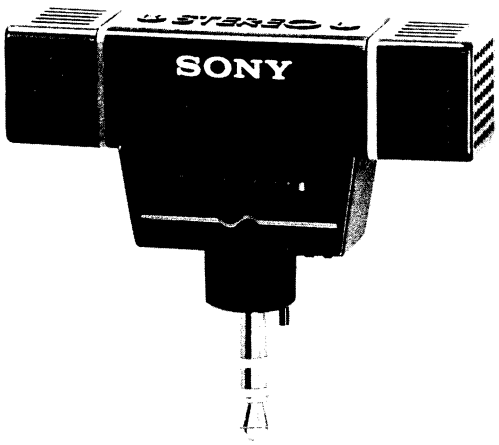
ECM-102

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



SPECIFICATIONS

General

Type:	Electret condenser microphone (with back-electret condenser capsules)
Battery:	Mercury battery IEC Designation MR44 (ANSI M15)
Dimensions (excl. plug):	46 x 28 x 12 mm (w/h/d) ($1\frac{13}{16}$ x $1\frac{1}{8}$ x $\frac{1}{2}$ inches)
Weight (incl. battery):	Approx. 18 g (0.63 oz)
Finish:	Non-reflective black
Supplied Accessories:	Plug adaptor (1) Soft case (1) Wind screen (1 set) Sony mercury battery EPX675 (1)

Performance

Frequency Response:	100 Hz – 15,000 Hz
Directivity:	Uni-directional
Output Impedance:	1.2 kohm ±30%, unbalanced
Output Level (deviation ±3 dB):	Open circuit voltage -74.0 dB (0.2 mV) (0 dB = 1 V/μbar, 1,000 Hz) Recommended load impedance is more than 5 kilohms.
Power Requirements:	Normal operating voltage: 1.35 V Current drain: Less than 0.4 mA Battery life: Approx. 600 hours with Sony battery EPX675
Noise Level:	Signal-to-noise ratio More than 35 dB (1,000 Hz, 1μbar) Inherent noise Less than 39 dB SPL Wind noise* Less than 50 dB SPL (with wind screens)

* Wind noise is the value measured by applying a wind velocity of 2 m/sec (6.6 ft/sec) from all directions to the microphone. The mean value is taken and converted to the equivalent input sound level.
0 dB = 2 x 10^{-4} μbar

Temperature Range:	-20°C to +60°C (-4°F to +140°F) for storage 0°C to 60°C (32°F to 140°F) for operation

FEATURES

- Electret condenser stereo microphone which can be plugged into the MIC jack of the stereo cassette-corder.
- Automatic switch by which the power is set to ON automatically when you plug in the microphone and to OFF when you pull it out.
- 2-way powering system: microphone can be powered by a cassete-corder having a MIC jack* (PLUG IN POWER), or can be operated using an internal battery.
- Supplied plug adaptor can either be used as a table microphone or a lavaliere microphone.

* Please note that only certain models (such at the WA-77, WA-200, WA-8000 and WA-8200 have the capability of supplying power through the MIC jack.

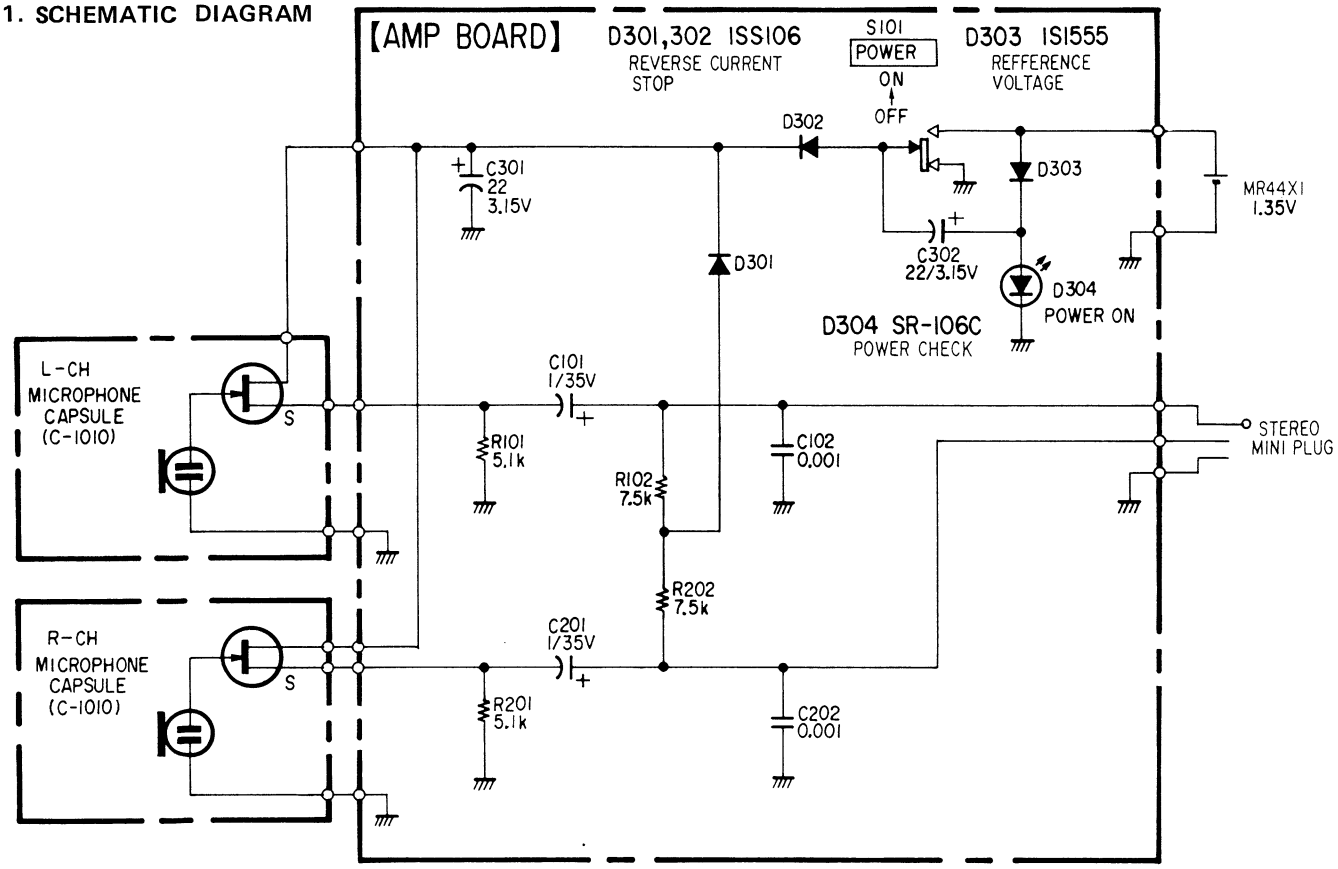
ELECTRET CONDENSER STEREO MICROPHONE

SONY®

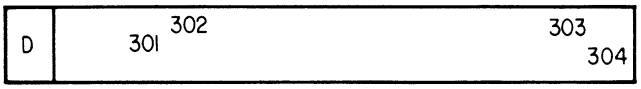
MICROFILM

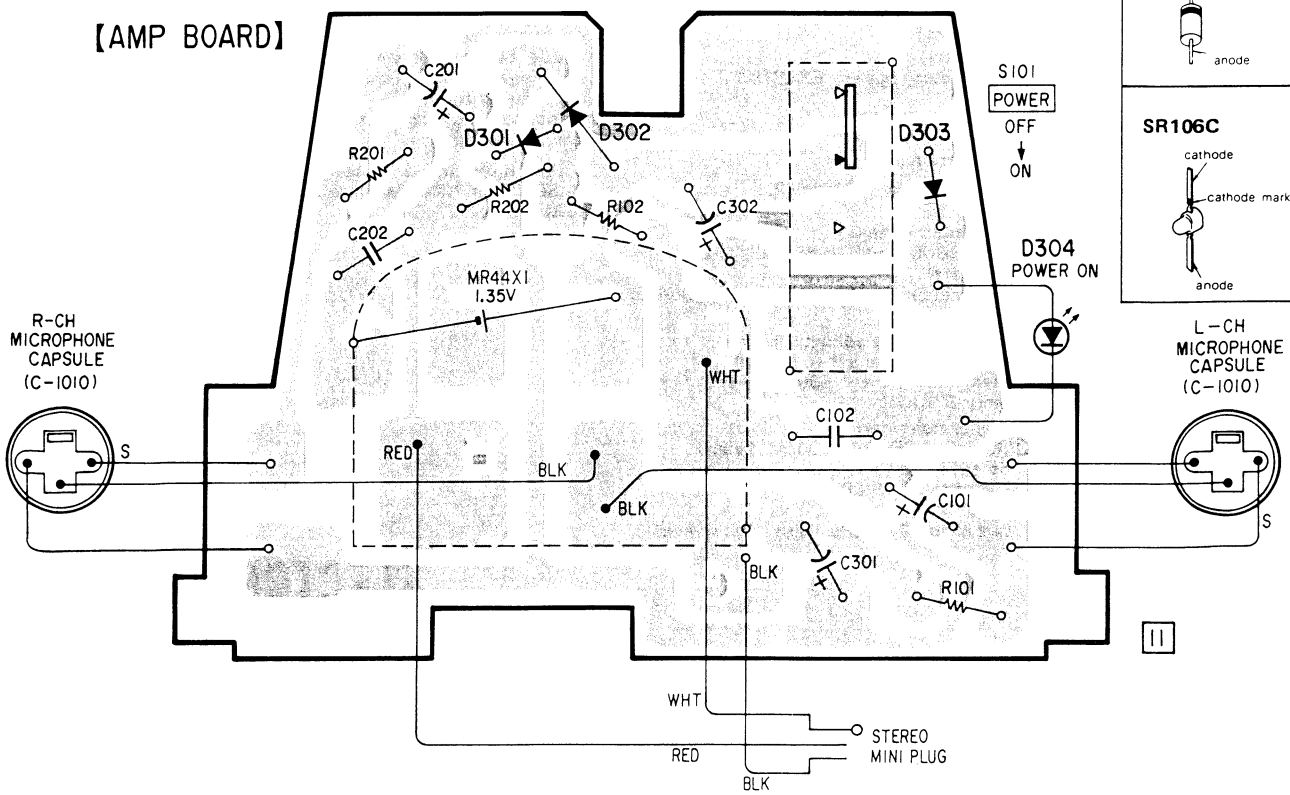
ACC

1. SCHEMATIC DIAGRAM

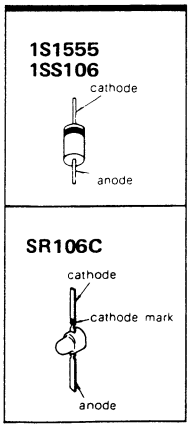


2. MOUNTING DIAGRAM





● **Semiconductor Lead Layouts**



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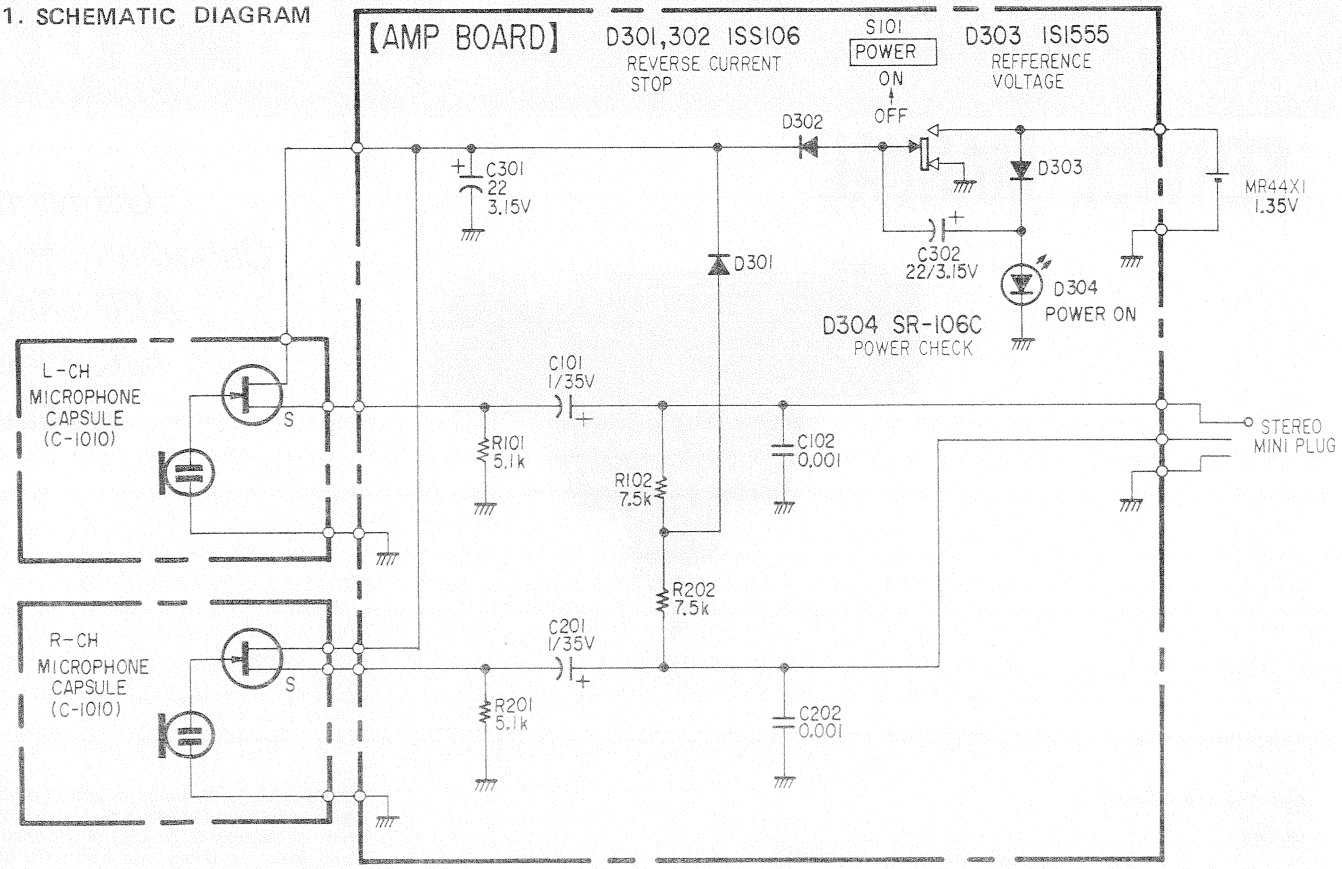

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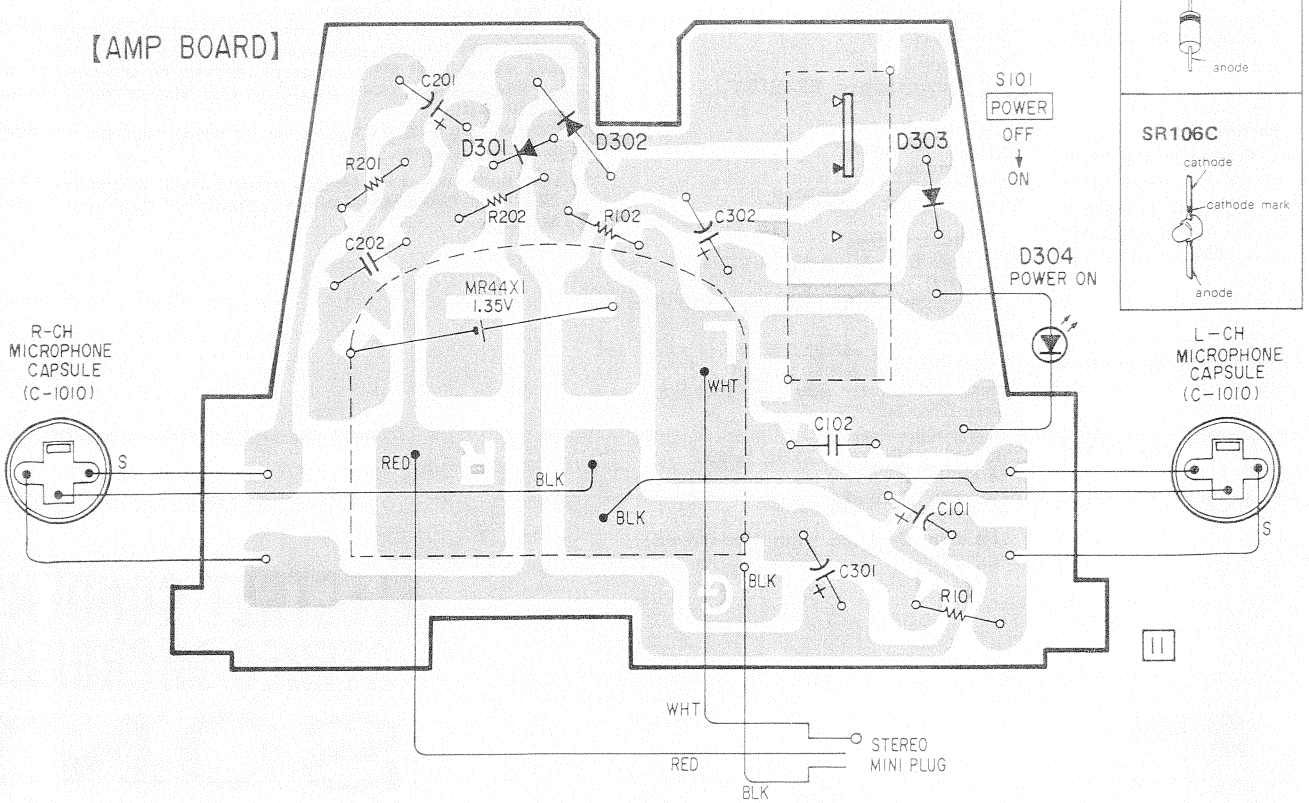
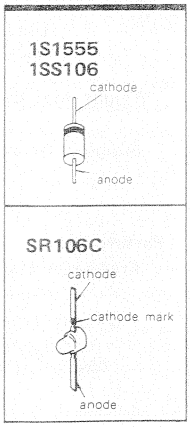
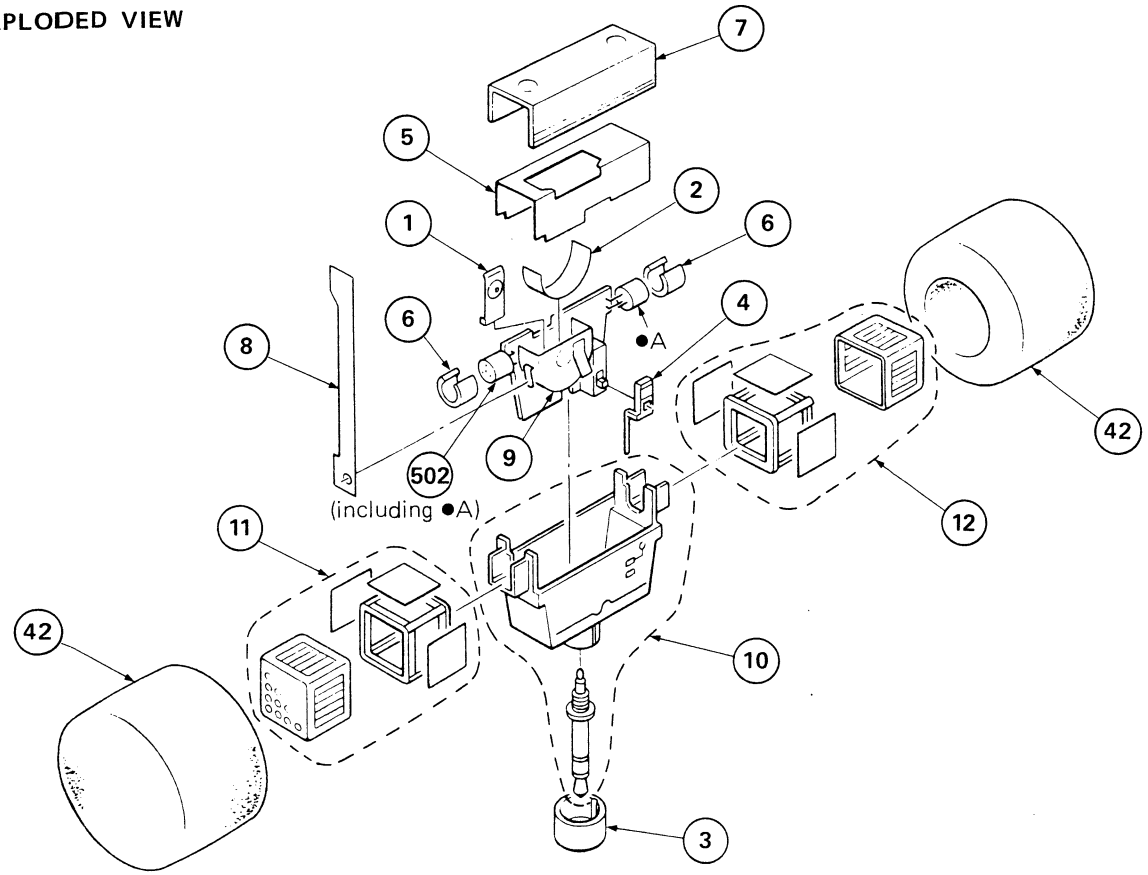


● Semiconductor Lead Layouts



3. EXPLODED VIEW



4. PARTS LIST

GENERAL SECTION

No.	Part No.	Description
1	2-533-604-00	TERMINAL, PLUS
2 ♦	2-533-615-02	SHEET, INSULATING
3	2-533-637-00	RING, BASE
4	2-533-638-00	SLIDER, SWITCH
5	2-533-639-00	COVER
6	2-533-642-00	SPACER, VIBRATION PROOF
7	2-533-645-00	LID
8	2-533-643-00	BELT
9 ♦	X-2533-606-0	TERMINAL BOARD ASSY, MINUS
10	X-2533-607-0	CASE ASSY, MICROPHONE
11	X-2533-608-0	CASE (RIGHT) ASSY (RED)
12	X-2533-609-0	CASE (LEFT) ASSY (WHITE)

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-557-132-00	CORD, CONNECTION (PC-62)
2-533-609-11	SCREEN, WINDOW
2-533-634-00	CASE, SOFT
2-533-636-00	FRAME, INNER
2-599-224-11	MANUAL, INSTRUCTION
2-533-646-01	INDIVIDUAL CARTON

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
501 ♦	1-610-163-00	PC BOARD, AMP			
502	X-2533-610-1	CAPSULE KIT ASSY (L,R PAIR)			
C101	1-131-347-00	TANTALUM	1MF	20%	35V
C102	1-101-001-00	CERAMIC	0.001MF		50V
C201	1-131-347-00	TANTALUM	1MF	20%	35V
C202	1-101-001-00	CERAMIC	0.001MF		50V
C301	1-131-391-00	TANTALUM	22MF	20%	3.15V
C302	1-131-391-00	TANTALUM	22MF	20%	3.15V
D301	8-719-911-06	DIODE 1SS106			
D302	8-719-911-06	DIODE 1SS106			
D303	8-719-815-55	DIODE 1S1555			
D304	8-719-100-06	DIODE SR106C			
R101	1-247-848-00	CARBON	5.1K	5%	1/6W
R102	1-247-852-00	CARBON	7.5K	5%	1/6W
R201	1-247-848-00	CARBON	5.1K	5%	1/6W
R202	1-247-852-00	CARBON	7.5K	5%	1/6W
S101	1-554-498-00	SWITCH, SLIDE			

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part numbers (Δ-ΔΔΔ-ΔΔΔ-XX or Δ-ΔΔΔΔ-ΔΔΔ-X) may be different from those used in the set.

CAPACITORS:
- All capacitors are in μF. Common capacitors are omitted. Refer to the following lists for their part numbers. MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms. Common 1/4W, 1/8W and 1/16W carbon resistors are omitted. Refer to the following lists for their part numbers.